MEDICINE INFORMATION

Pertuzumab + trastuzumab (including Phesgo)

Information for patients and caregivers about pertuzumab + trastuzumab: treatment, monitoring, side effects and everyday care.

Pertuzumab + trastuzumab at a glance

Pertuzumab and trastuzumab are two targeted antibodies used together in selected HER2-positive breast cancers. Familiar brands include Perjeta for pertuzumab and Herceptin for trastuzumab; approved trastuzumab biosimilars are also available. Phesgo combines both antibodies with hyaluronidase in one injection under the skin. The separate intravenous medicines and Phesgo need different administration instructions.

This guide explains the two-antibody component of care. Many treatment plans begin with chemotherapy as well, and the antibodies may continue after chemotherapy ends. Reading a two-drug guide does not mean chemotherapy can be omitted from your prescribed plan. The key precautions are heart monitoring, reactions during administration, diarrhoea, new breathing symptoms and avoiding pregnancy during treatment and for seven months afterwards.

How pertuzumab + trastuzumab works

HER2 is a protein on the surface of some cells. When a breast cancer has too much HER2, growth signals can be stronger than normal. Pertuzumab and trastuzumab attach to different parts of HER2 and interfere with those signals. They can also help immune cells recognise the cancer. They are usually classified as HER2-targeted therapy, rather than immune checkpoint treatment.

The two antibodies do not contain a chemotherapy payload. Trastuzumab emtansine and trastuzumab deruxtecan are different medicines, despite sharing part of the name, and must not be confused with ordinary trastuzumab. Phesgo's hyaluronidase helps deliver the antibodies under the skin; it does not turn the combination into an antibody-drug conjugate.

How the team decides whether it is suitable

The cancer must meet the relevant HER2-positive testing criteria. The team reviews the pathology report, cancer stage, previous treatment, response, heart health and treatment aim. HER2-low wording on a report is not equivalent to HER2-positive selection for this pair. Ask the team to explain the actual result rather than relying on the word HER2 alone.

In some people the aim is to reduce recurrence risk as part of treatment around surgery; in others it is to control advanced cancer. The place of the antibody pair within the overall plan matters. This guide does not rank every available breast-cancer treatment or establish Indian licensing, funding or access. Your oncologist should explain why this option fits your current situation.

Approved uses by country

FDA (United States), EMA (European Union) and CDSCO (India).

Each treatment use is listed once. Eligibility can differ by country.

Approved by FDA, EMA and CDSCO

HER2-positive locally advanced, inflammatory or early breast cancer

Before surgery, with chemotherapy.

- **US (FDA).** For a tumour larger than 2 cm or cancer involving lymph nodes, as part of an overall treatment plan. HER2 status must be confirmed with an FDA-authorised test.
- **EU (EMA).** When there is a high risk of the cancer returning. The labels define a positive result as IHC 3+ or an ISH ratio of at least 2.0 on a validated test.
- **India (CDSCO).** For a tumour larger than 2 cm or cancer involving lymph nodes. The labels define a positive result as IHC 3+ or an ISH ratio of at least 2.0 on a validated test.

Early HER2-positive breast cancer

After surgery, with chemotherapy, when there is a high risk of the cancer returning.

- **US (FDA).** HER2 status must be confirmed with an FDA-authorised test.
- **EU (EMA) · India (CDSCO).** The labels define a positive result as IHC 3+ or an ISH ratio of at least 2.0 on a validated test.

First treatment with docetaxel for advanced HER2-positive breast cancer

- **US (FDA).** Metastatic HER2-positive breast cancer. With docetaxel when no chemotherapy or HER2-targeted treatment has been used for metastatic disease. HER2 status must be confirmed with an FDA-authorised test.
- **EU (EMA).** Metastatic or locally recurrent unresectable HER2-positive breast cancer. With docetaxel when no chemotherapy or HER2-targeted treatment has been used for metastatic disease. The labels define a positive result as IHC 3+ or an ISH ratio of at least 2.0 on a validated test.
- **India (CDSCO).** Metastatic or locally recurrent unresectable HER2-positive breast cancer. As separate infusions with docetaxel, if no chemotherapy has been used for metastatic disease. The labels define a positive result as IHC 3+ or an ISH ratio of at least 2.0 on a validated test.
- **India (CDSCO).** Metastatic HER2-positive breast cancer. As a Phesgo injection with docetaxel, if no chemotherapy or HER2-targeted treatment has been used for metastatic disease. The labels define a positive result as IHC 3+ or an ISH ratio of at least 2.0 on a validated test.

Before treatment starts

Tell the team about heart disease, high blood pressure, previous anthracycline chemotherapy, chest radiotherapy, breathlessness, swollen ankles and previous reactions to trastuzumab or pertuzumab. Bring a complete medicine list, including non-prescription medicines, supplements and traditional products. Tell them if you could be pregnant or want to discuss future pregnancy.

Heart pumping function is measured, usually by echocardiogram; another imaging test may be used. This provides a baseline for comparison. Blood tests may check blood counts, liver and kidney function, especially when other treatments are involved. A pregnancy test is arranged when relevant. The team also checks how you feel and whether symptoms suggest infection or another problem before each administration.

Ask whether you will receive two separate medicines or Phesgo, how long the first visit will take, and what monitoring happens afterwards. Write down the emergency contact number and fever advice. If the treatment plan contains other drugs, obtain their information too, because this sheet cannot describe their additional risks.

How pertuzumab + trastuzumab is given

Separate intravenous medicines

The medicines are usually given every three weeks. Pertuzumab and intravenous trastuzumab are given separately through a cannula, port or other suitable line. The first infusions take longer: pertuzumab is commonly infused over 60 minutes and trastuzumab over 90 minutes. Later doses may be quicker when earlier doses were tolerated. Observation adds time to the visit.

The first dose may be a loading dose, which establishes the required drug level. Intravenous trastuzumab dosing is weight-based, whereas the pertuzumab schedule is fixed. Some centres use separate subcutaneous trastuzumab with intravenous pertuzumab. That is still different from Phesgo and needs its own prescription and product checks. You do not need to calculate the dose yourself, but tell the team about significant weight change.

Phesgo injection under the skin

Phesgo is injected under the skin of the thigh, not into a vein. The initial injection takes about eight minutes and later injections about five minutes. The team normally observes you for at least 30 minutes after the first injection and at least 15 minutes after later injections. Appointment time therefore exceeds the injection time. The nurse alternates thighs and avoids unsuitable skin.

Phesgo uses a fixed dose rather than a dose calculated from body weight. It contains a larger initial pertuzumab dose than subsequent injections. It is not made by mixing the intravenous medicines at the bedside and must never be substituted milligram for milligram without the correct prescription. Switching between routes is organised by the cancer team.

Missed appointments and treatment duration

Contact the clinic promptly if an appointment is missed or delayed. A sufficiently long gap can mean another loading dose is needed; the team calculates this from the actual interval and product. Do not simply wait until the following routine cycle without telling them. Treatment duration depends on its purpose, benefit and side effects. Around surgery, the total HER2-directed course is often planned over approximately one year; advanced treatment may continue while helpful and tolerated.

If a visit is delayed or you change between infusions and Phesgo, give the team the date and formulation of your last dose. They use this information to decide whether to give a loading dose again.

Monitoring and checking response

Heart imaging is repeated during treatment, commonly about every three months, with the schedule adapted to risk and treatment setting. The measurement is often called the left ventricular ejection fraction, or LVEF: the proportion of blood pumped out with each beat. A fall can occur before symptoms, which is why feeling well does not remove the need for testing.

The team also asks about bowel symptoms, breathing, swelling, activity and reactions after previous doses. Blood tests and scans are organised according to the complete treatment plan. A scan assessing cancer response and an echocardiogram assessing heart safety answer different questions. Keep both appointments, and report changes between them rather than waiting for a scheduled check.

Common side effects and practical care

Diarrhoea and reduced appetite

Diarrhoea is an important effect of pertuzumab-containing treatment and can sometimes be severe. Ask for a written plan for anti-diarrhoea medicine and when to call. Record the number of loose stools, drink regularly if not fluid-restricted and tell the team if you are eating or drinking less. Persistent symptoms can lead to dehydration and may require a treatment delay.

Seek prompt help for diarrhoea with blood, fever, severe pain, dizziness or reduced urine. Do not assume all bowel symptoms are caused by the antibodies, especially while chemotherapy or antibiotics are also being given. Infection and other causes may need assessment.

Tiredness, skin changes and discomfort

Fatigue, headache, nausea, rash, itching and aches may occur. Balance activity and rest, use gentle skin products and ask before taking new medicines for symptoms. If symptoms interfere with normal tasks or sleep, tell the team; supportive treatment or investigation may help. A sudden large change in energy, particularly with breathlessness, should not be dismissed as ordinary tiredness.

Injection-site effects and the wider treatment plan

Phesgo may cause local tenderness, redness or swelling. Tell the nurse about a painful area before the next injection. Increasing redness, heat, spreading swelling, discharge or fever needs assessment. Intravenous lines have different local risks: pain, redness or swelling around a line should also be reported.

Hair loss, marked low blood counts, mouth soreness and nerve symptoms may reflect accompanying or recent chemotherapy. Their presence or absence cannot be predicted from this two-antibody guide alone. Ask which effects belong to each part of your plan so that you have the right advice after chemotherapy finishes.

Important side effects to recognise

Heart pumping problems

These medicines can weaken the heart's pumping function. Report new breathlessness, ankle or leg swelling, unexpectedly rapid weight gain, palpitations, a persistent cough or needing extra pillows to breathe comfortably. The team may pause treatment, repeat heart tests and involve a heart specialist. Some changes improve with treatment, but assessment should not be delayed.

Allergic and administration reactions

Reactions can occur during an infusion or injection or afterwards. Tell the nurse immediately about itching, flushing, chills, fever, dizziness, chest discomfort, throat tightness or breathing difficulty. The team can stop or slow administration and provide treatment. Severe allergy may require the medicine to be stopped permanently. A previous uneventful dose does not guarantee every later dose will be uneventful.

Lung problems and infection

Trastuzumab-containing treatment can rarely cause serious lung toxicity. A new cough, worsening breathlessness or low oxygen reading needs urgent advice, including after leaving the clinic. Symptoms may also be caused by infection, heart problems or a clot, so they should not be self-diagnosed.

When chemotherapy is part of the wider plan, infection associated with low white blood cells can be especially dangerous. Follow the team's fever threshold and call if you have shaking chills or feel seriously unwell even without fever. Do not assume the risk has immediately disappeared because the chemotherapy course has just ended.

When to get urgent medical help

Urgent help: Contact your cancer team's 24-hour number for new breathlessness, worsening cough, ankle swelling, rapid unexplained weight gain, persistent diarrhoea, vomiting that prevents drinking, fever, shaking chills or feeling acutely unwell. Use the temperature threshold in your own plan and do not wait for a high temperature if other symptoms are concerning.

Seek emergency help for severe breathing difficulty, swelling of the tongue or throat, collapse, severe chest pain or signs of a stroke. Use your locally available emergency service or the nearest emergency department. Tell clinicians that you receive pertuzumab and trastuzumab, and specify whether the product is Phesgo. During administration, alert the nurse immediately instead of waiting until the medicine has finished.

Other medicines and vaccinations

Tell every prescriber that you receive HER2-targeted treatment. Medicines or treatments that affect the heart need particular review. Previous or future anthracycline chemotherapy is relevant because trastuzumab remains in the body for months and cardiac risks can overlap. Do not stop prescribed blood-pressure or heart medicines without advice.

Check before starting herbal products, supplements or over-the-counter remedies. Discuss vaccination timing with the team, especially if chemotherapy, steroids or another immune-affecting treatment is also used. The vaccine's type and your complete treatment plan matter. Keep an updated list rather than assuming the clinic automatically knows about a medicine prescribed elsewhere.

Everyday life during treatment

You can usually eat before an antibody appointment unless another planned procedure requires fasting. Bring a drink, something to do and a list of questions, allowing extra time for observation. Ask about transport for the first dose because a reaction or medicine given for a reaction may make driving unsuitable.

Many people continue aspects of work, home life and gentle exercise, adjusting to symptoms and the wider treatment plan. A short injection appointment does not mean monitoring is unnecessary or side effects are trivial. Keep space in your diary for heart tests and reviews. If travel is planned, discuss the schedule early so a missed cycle does not cause an avoidable delay or repeat loading dose.

It is normal to feel uncertain when chemotherapy ends but antibodies continue. Ask the team to explain what is changing, what remains the same and which emergency precautions still apply. Support from family, a breast-care nurse, counsellor or patient group can help with practical and emotional concerns.

Fertility, pregnancy and breastfeeding

Trastuzumab-containing treatment can seriously harm a developing baby, including affecting the fluid surrounding the baby and development of the lungs. If you could become pregnant, use effective contraception during treatment and for seven months after the last trastuzumab-containing dose. Discuss the method with the team, particularly in breast cancer where the suitability of hormonal contraception needs individual consideration. Contact the team immediately if pregnancy is possible during this period.

Fertility advice should consider the entire cancer plan, especially previous or planned chemotherapy, age and other treatments. Ask about preservation options before starting when possible. Stopping periods does not prove pregnancy is impossible.

Discuss breastfeeding before treatment. Avoid breastfeeding while receiving this combination unless a specialist has explicitly made a different plan after reviewing the risks. Ask for a written restart decision; trastuzumab's seven-month washout period must be considered. Product information differs in how breastfeeding advice is expressed, so the contraception end date should not automatically be treated as a personal breastfeeding instruction.

After a pause or the end of treatment

Heart changes, severe reactions or other problems can lead to a pause or stopping treatment. Ask whether both antibodies are affected and whether further heart tests or specialist review are needed. These antibodies are generally managed with a hold or discontinuation rather than patients adjusting a dose themselves. If treatment restarts after a long interval, a loading dose may be needed.

Heart follow-up can continue after the final dose, particularly after treatment for early breast cancer or if problems developed. For adjuvant Herceptin, the US label recommends heart-pumping assessments every six months for at least two years after completion; your team should confirm the schedule for your product and circumstances. Keep reporting new symptoms and tell future clinicians when trastuzumab was last given. Continue contraception for the full seven-month interval. A final treatment summary should record the products, dates, relevant reactions, heart results and follow-up plan.

Frequently asked questions

1. Is Phesgo a third anticancer antibody?

No. It is a formulation containing pertuzumab and trastuzumab together, with hyaluronidase to help administration under the skin. The two anticancer antibodies are the same named active treatments discussed in this guide, but the product has its own dose and route.

2. Is the injection less effective because it is quicker?

Its shorter administration time reflects its formulation and route, not a deliberately weaker treatment. The cancer team chooses an appropriate approved product and schedule. The injection still needs observation, heart monitoring and attention to side effects.

3. Can Phesgo be given through my port?

No. Phesgo is for injection under the skin of the thigh and must not be given intravenously. Separate intravenous pertuzumab and trastuzumab are different products. Always mention the product name if a new team takes over your care.

4. Why is intravenous trastuzumab weight-based but Phesgo is fixed?

The formulations were developed with different dosing schedules. A fixed-dose injection is not calculated by copying the intravenous milligram dose. The clinic checks the correct product and loading or maintenance dose; patients should not convert between them.

5. Can I change from infusions to Phesgo?

This may be possible when appropriate and available, but the team must organise the switch using the last treatment date and correct dosing instructions. Do not assume a route change is automatically suitable after a severe reaction to one of the antibodies.

6. Why is the first visit longer?

The first dose may require slower administration and longer observation because reactions are possible. For Phesgo, injection time is about eight minutes initially, followed by at least 30 minutes of monitoring; later doses have shorter specified times. Other clinic tasks add time too.

7. What happens if I miss my three-week appointment?

Call the clinic as soon as possible. The interval since the last dose determines whether the ordinary maintenance dose or another loading dose is needed. Do not wait silently until the next scheduled cycle.

8. Does this guide mean I can avoid chemotherapy?

No. It describes the antibody component. Many established plans include chemotherapy initially, with the antibodies continuing afterwards. Whether chemotherapy is needed is an individual treatment decision; do not remove it from a prescribed plan based on this sheet.

9. Why do antibodies continue when chemotherapy finishes?

Different components can have different planned durations. Continuing HER2 blockade may remain part of reducing recurrence risk or controlling advanced cancer. Ask for a written timeline explaining your own aim and expected review points rather than comparing with someone else's course.

10. Is HER2-low the same as HER2-positive?

No. Those terms can lead to different treatment decisions. This pair is selected using HER2-positive criteria. Other HER2-directed medicines have different eligibility rules, which should not be transferred to pertuzumab with trastuzumab.

11. Is trastuzumab deruxtecan just another brand of trastuzumab?

No. It is an antibody-drug conjugate and has different risks and instructions. Trastuzumab emtansine is also a different medicine. Check the complete generic name on your treatment record, especially when treatment changes.

12. Are trastuzumab biosimilars acceptable?

An approved biosimilar is evaluated against its reference medicine for similarity in quality, safety and effectiveness. Your team selects the product authorised for your setting. Record its name, and ask before assuming a subcutaneous product can replace an intravenous one.

13. Why do I need heart scans without symptoms?

A change in pumping function may be detected before you feel it. Monitoring allows the team to consider a pause or heart treatment early. Still report breathlessness, swelling or rapid weight gain between tests.

14. Does a treatment pause for the heart mean permanent damage?

Not necessarily. Some changes improve, but the outcome depends on the problem and your health. Further tests and sometimes a heart specialist guide whether treatment can restart. Do not assume either permanent damage or automatic recovery without assessment.

15. Can diarrhoea still happen without chemotherapy?

Yes. Pertuzumab-containing treatment can cause diarrhoea itself. Keep the bowel-care plan after chemotherapy ends. Persistent loose stools, dehydration, fever, blood or severe pain need advice rather than an assumption that antibodies are too mild to be responsible.

16. Should I ignore redness after a Phesgo injection?

Mild local discomfort can occur, but worsening pain, spreading redness, heat, discharge or fever should be reported. Tell the nurse about the previous site before another injection so an appropriate area can be chosen.

17. Does every fever mean an infusion reaction?

No. Infection and other causes are possible, especially with recent chemotherapy. Follow the team's temperature threshold and report chills or feeling acutely unwell. Do not use a previous mild infusion reaction to explain a new fever without advice.

18. How long must I avoid pregnancy afterwards?

Use effective contraception for seven months after the final trastuzumab-containing dose, including Phesgo, and confirm the date with the team. Contact them promptly if pregnancy occurs or is suspected during this interval.

19. Can I breastfeed when treatment stops?

Do not assume it is safe immediately. Ask for an individual plan that considers the long persistence of trastuzumab, including its seven-month washout, and all other medicines. The infant's feeding plan should be discussed before treatment where possible.

20. Which symptoms should never wait for my next cycle?

Severe breathlessness, throat or tongue swelling, collapse and severe chest pain need emergency help. New milder breathlessness, swelling, persistent diarrhoea, fever or inability to drink needs prompt cancer-team advice. Your next routine appointment is not the right time to first report these symptoms.

Individual medicine guides

- Pertuzumab
- Trastuzumab

Sources and review information

Sources checked: 8 October 2026. Read with your prescribed product leaflet and your hospital’s treatment plan.

Macmillan: Phesgo or pertuzumab and trastuzumab

Cancer Research UK: Trastuzumab and pertuzumab

Cancer Research UK: Phesgo

Genentech: Perjeta US prescribing information

Genentech: Herceptin US prescribing information

Genentech: Phesgo US prescribing information

Additional sources

Summary of Product Characteristics (SmPC)

- Perjeta (pertuzumab): Summary of Product Characteristics - EMA product information, Annex I (PDF)
- Herceptin (trastuzumab): Summary of Product Characteristics - EMA product information, Annex I (PDF)
- Phesgo (pertuzumab and trastuzumab): Summary of Product Characteristics - EMA product information, Annex I (PDF)

Regulatory references

- FDA prescribing information for Perjeta
- FDA prescribing information for Phesgo
- Indian prescribing information for Perjeta
- Indian prescribing information for Phesgo

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